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Subst. Spec.

APPARATUS FOR SHAPING AND/OR FOLDING CAN BODIES

of to Exter Ettolon

CROSS REFERENCE TO RELATED APPLICATIONS

Estolar 4-27-06

This application is the US national phase of PCT application PCT/DE03/00528, filed 20 February 2003, published 12 September 2003 as WO 03/074208, and claiming the priority of German patent application 10209154.4 itself filed 1 March 2002.

FIELD OF THE INVENTION

The invention relates to an apparatus for shaping and/or folding can bodies having at least two oppositely rotating shaping tools of which one is mounted on an arm for radial movement.

BACKGROUND OF THE INVENTION

Such apparatuses are used for necking or grooving can bodies. For necking, a can body is reduced in diameter at one or both ends so that the diameters of the top and bottom ends of the can are made smaller.

Grooving entails inserting a cam-controlled profiled inner tool into the end of the can body and then rolling it off against an annular internally profiled outer tool so that the groove profile is imparted to the wall of the can-body end.

Grooving serves for increasing the resistance to implosion of a filled can that is internally pressurized and filled hot and then cooled, so that the can interior is depressurized after cooling.

An example of an apparatus for forming a necked or grooved section at an end of a can body is shown in EP 0,772,501 (US equivalent 5,653,138). Here two axially movable inner tools of which at least one is made to rotate, and with a shape